

**Listing of the Claims:**

The following is a complete listing of all the claims in the application,  
with an indication of the status of each:

1 (Original). A method for detecting a dye bolus injected into  
the body of a living being, by irradiating optical radiation into the body (4)  
and detecting a response radiation occurring on the surface of the body,  
characterized in that a fluorescent dye is injected, an optical excitation  
5 radiation is irradiated into the body, and a temporal relation between a  
fluorescent radiation, which is triggered by the excitation radiation, and the  
excitation radiation is measured.

2 (Original). The method as claimed in claim 1, characterized in that the  
10 excitation radiation is emitted as a short pulse.

3 (Previously Presented). The method as claimed in claim 1, characterized  
in that a time profile of the fluorescent radiation triggered by the excitation  
radiation is determined.

15 4 (Previously Presented). The method as claimed in claim 1, characterized  
in that, for detection of the fluorescent radiation, the frequency of the  
excitation radiation is blocked off by filtering.

20 5 (Previously Presented). The method as claimed in claim 1, characterized  
in that a detection of the reflected excitation radiation is carried out  
simultaneously and in parallel.

6 (Original). The method as claimed in claim 5, characterized in that the detection of the reflected excitation radiation is likewise carried out with time resolution.

5 7 (Previously Presented). The method as claimed in claim 1, characterized in that the detected fluorescent radiation is evaluated by assessing the distribution of the measured temporal relation.

8 (Original). The method as claimed in claim 7, characterized in that a rise  
10 in the distribution is used as an indicator for the start of the dye bolus.

9 (Previously Presented). The method as claimed in claim 1, characterized in that the excitation radiation is irradiated into the body (4) at the head in order to examine the brain.

15 10 (Previously Presented). The method as claimed in claim 1, characterized in that the excitation radiation is irradiated into the body (4) in the area of the lungs.

20 11 (Original). A device for detecting a dye bolus injected into the body (4) of a living being, with an optical radiation source (1) for irradiating an optical radiation into the body (4), and with a detection arrangement (6-16) for detecting a response radiation emanating from the body (4), characterized in that the optical radiation source (1) is designed to emit an  
25 excitation radiation with a first frequency, and the detection arrangement is designed to detect a response radiation with a second frequency different than the first frequency and to determine a temporal relation between the

emitted excitation radiation and at least part of the detected response radiation.

5 12 (Original). The device as claimed in claim 11, characterized in that the optical radiation source (1) operates in pulsed mode.

10 13 (Previously Presented). The device as claimed in claim 11, characterized in that the detection arrangement (6—14) is designed to detect a time profile of the fluorescent radiation triggered by a pulse of the excitation radiation.

15 14 (Previously Presented). The device as claimed in claim 11, characterized in that the detection arrangement (6—14) has an optical filter (7) for blocking off the excitation radiation.

15 15 (Previously Presented). The device as claimed in claim 11, characterized in that the detection arrangement (6-14) has an additional detector branch (6'', 8, 10) for detection of reflected excitation radiation.

20 16 (Previously Presented). The device as claimed in claim 11, characterized in that the detection arrangement (6—14) has an evaluation unit (14) for temporal changes of the measured temporal relation.